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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,008	12/05/2001	Riichiro Ikeda	1560-0374P-SP	2855

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
SPISICH, GEORGE D	

ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 01/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/002,008	IKEDA, RIICHIRO	
	Examin r	Art Unit	
	George D. Spisich	3616	

SW

-- Th MAILING DATE of this communication appears on th cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *October 22, 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,7,11,12 and 16* is/are rejected.

7)☒ Claim(s) *3,6,8-10 and 13-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Ryne et al. (USPN 6,389,924).

Ryne et al. disclose an electric power steering apparatus having a steering assist motor (28) for assisting operation of a steering mechanism by turning a steering member and a support mechanism (30, seen best in Figure 2) for supporting the motor on a stationary member and the supporting mechanism has a releasing mechanism, shown as a pin on one side of the supporting mechanism and a hole and slot on the other side of the supporting mechanism, for releasing support of the motor on the stationary member by impact energy applied to the motor. It is understood that any connection, and especially the connection shown in Figure 2 would disconnect under impact.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 7, 11, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryne et al. (USPN 6,389,924).

Ryne et al. has been discussed in the prior rejection. However, though Ryne et al. does not show specifically a projection being inserted into a recess to make the connection between the motor and the stationary member, it is obvious that there would be a projection on the motor in opposite orientation to the projection and recess shown on the supporting member in Figure 2 to make the connection between the stationary member and the motor. This projection would be inserted into the recess and the releasing mechanism (the slot arrange with the recess or hole) comprises a movement permitting portion for permitting relative movement of the projection in the recess and a slip-off portion (slot) from where the projection slips off the movement permitting portion. To have the projection configured as a screw member or any other fastener with a head would have been an obvious expedient so as to facilitate connection.

Furthermore, Ryne et al. shows an electric power steering apparatus having a steering shaft (16) joined to a steering member, a shaft housing (14) for accommodating the steering shaft, a steering assist motor (28) for assisting operation of a steering

mechanism (which would be present in any steering arrangement) joined to the steering shaft. The steering assist motor would have a rotor (as a rotor is an element of any steering motor) and the motor and rotor (from Figure 1) appear to be arranged so that a rotational center thereof intersects an axis of the steering shaft and a cylindrical motor housing for support housing for supporting the rotor. Ryne et al. shows a supporting mechanism (30 or 26) for supporting one end of portion of the motor housing on the shaft housing and the supporting mechanism comprises a projection at a peripheral position of the motor which is understood to exist when considering the connection of the motor and the support mechanism as is shown in Figure 2. There is an arc-shaped groove provided at the shaft housing into which the projection is inserted so as to movable in a length direction of the groove. Since the supporting mechanism (30) is attached with the shaft housing, it is considered to meet the limitation that "the groove is provided at the shaft housing". Ryne et al. (as also seen in Figure 2) shows that the hole/recess in the supporting mechanism has an abutting groove defining a slip-off portion from where the projection slips off the arc-shaped groove when the projection moves.

The projection could be named as a "tongue" and the recess is configured as an annular groove.

Response to Arguments

With respect to Applicant's argument that there is no impact energy applied to the motor of Ryne et al., that Examiner assumes the connection show in Figure 2 and is operation and function and that there is no releasing of the motor due to the impact energy disclosed by Ryne et al. Examiner disagrees with the argument and maintains the rejection. The attachment of the motor with the connection as shown in Fig. 2 would clearly be detachable due to an "impact" in a releasable manner. The pin and slot is a clear connection that would operate and function in the claimed manner. This connection is meant to be disconnected be a force or impact. There need not be disclosure of an impact to understand that a connection of this type shown would disconnect under a particular impact. Once the desired force or impact is imparted on the motor, the connection would then enable the release of the motor. Applicant is stating that the connection is not able to be disconnected with a force or "impact" as claim 1 claims. Examiner maintains that the connection is released when there is an impact on the motor, and subsequently, the motor is released from the supporting mechanism. The fact that the connection would be able to be released on any impact is sufficient to meet this claimed limitation.

With respect to Applicant's argument that Ryne et al. does not show an arc-shaped groove provided at the shaft housing, or a projection being inserted so as to be movable in a length direction of the groove. Examiner disagrees with the argument and maintains the rejection. Figure 2 of Ryne et al. clearly shows what is a hole and a

groove extended from that hole. Seeing the pin on the opposite side of the hole and groove is clearly evidence that there would be a pin on the motor and a hole and groove on the motor in mating opposition to these parts on the supporting mechanism to engage with these parts on the supporting mechanism. This groove is shown as curved to follow the curve of the supporting mechanism and would be considered arc-shaped. The pin clearly present on the motor (but not shown) would be inserted through the hole and then rotated such that the pin moves lengthwise in the arc-shaped groove, to establish the desired impact releasable connection. The limitation that the groove is provided "at" the shaft housing only means that the groove be located near the shaft housing which is the case of Ryne et al.

Allowable Subject Matter

Claims 3, 6, 8-10 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art does not show (claim 3) and elastic member pushing the projection outward to a slip-off portion, or (at least claims 8-10, 13 and 15) an impact energy receiver on the peripheral face of the housing for applying rotational force to the housing by the impact energy.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (703) 305-6495. The examiner can normally be reached on Monday to Friday 6:00-3:30 except alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Gds
December 30, 2003

1/9/03
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600